

sub a³

WHAT IS CLAIMED IS:

1. A drive control method of a photosensor array including a plurality of rows, each having a plurality of photosensors arranged to form a matrix, comprising:

5 a first step for applying a reset pulse to a
predetermined row of said photosensor array so as to
initialize the plural photosensors in said row;

a second step of applying a read pulse to the plural of photosensors of said row after completion of said initialization, after a charge accumulating period for accumulating charges generated by light irradiation, and after a pre-charge operation in which a predetermined pre-charge pulse is applied to said plurality of photosensors, to output the voltage generated by the charges accumulated during said charge accumulating period as an output voltage,

wherein the timings of applying the pre-charge pulse and the read pulse for each row are set not to overlap in time with each other, and the charge accumulating periods for the rows have an overlapping period between at least two different rows.

2. The drive control method for a photosensor system according to claim 1, wherein said reset pulses are successively applied to the rows of the photosensor array in said first step so as to successively initialize said plurality of photosensors, and read pulses are successively applied to said plurality of

[illegible]

5

10

15

25

the reset pulse in the first step, the pulse width of the pre-charge pulse and the pulse width of the read pulse in said second step.

5 6. The drive control method for a photosensor system according to claim 2, wherein said charge accumulating period in said second step is set at a period in which the applying time of said pre-charge pulse and said read pulse for each row in the second step constitutes a unit time.

10 7. The drive control method for a photosensor system according to claim 1, wherein each of said photosensor comprises a source electrode and a drain electrode arranged with a channel region consisting of a semiconductor layer interposed therebetween, and a first electrode and a second electrode formed at least
15 above and below said channel region with insulating layers interposed therebetween, wherein the charges are generated and accumulated in an amount corresponding to the amount of light irradiating said channel region.

20 8. The drive control method for a photosensor system according to claim 7, wherein said reset pulse is applied to said first electrode of said photosensor in said first step to initialize said photosensor; and

25 said pre-charge pulse is applied to said drain electrode of the photosensor in the second step, and said read pulse is applied to said second electrode of the photosensor after completion of the pre-charge

00539210.033000

9. The drive control method for a photosensor system according to claim 1, wherein the applying period of said pre-charge pulse for each row and said read pulse in said second step is equal to or an integer number times as long as the sum of the pulse width of the pre-charge pulse and the pulse width of the read pulse in said second step.

11. The drive control method for a photosensor system according to claim 9, wherein said reset pulses are simultaneously applied to the rows of said photosensor array in said first step, and said pre-charge pulses are applied in said second step at the time interval equal to or an integer number times as long as said sum, and said read pulses are applied to each row.

12. The drive control method for a photosensor system according to claim 9, wherein said reset pulses are applied in said first step to each row of said

photosensor array at the time interval equal to or an integer number times as long as said sum and, after completion of the reset pulse application to all the rows, said pre-charge pulses are applied in said second step and read pulses are applied to each row in the order opposite to the order of applying the reset pulses to each row of the photosensor array in the first step.

13. The drive control method for a photosensor system according to claim 9, wherein said reset pulses are successively applied in said first step to each row of said photosensor array at the time interval equal to or an integer number times as long as said sum;

said pre-charge pulses are applied in said second step in synchronism with said first step, and read pulses are applied to each row in the order opposite to the order of applying the reset pulses to each row of the photosensor array in the first step; and

after completion of the pre-charge voltage application and the read pulse application, and after lapse of said sum of time, said pre-charge pulses are applied and the read pulse is applied again to each row in the order equal to the order of applying the read pulse to each row at the time interval equal to or an integer number times as long as said sum of time.